

REMARKS

Applicants request favorable reconsideration and allowance of the subject application in view of the preceding amendments and the following remarks.

Claims 23-27 are presented for consideration. Claim 23 is the sole independent claim. Claims 23-26 have been amended to clarify features of the subject invention. Support for these changes can be found in the original application, as filed. Therefore, no new matter has been added.

Applicants request favorable reconsideration and withdrawal of the rejection set forth in the above-noted Office Action.

Claims 24-27 (*sic* 23-27) were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,224,679 to Sasaki et al. in view of U.S. Patent No. 5,413,664 to Yagi et al. Applicants submit that the cited art, whether taken individually or in combination, does not teach or suggest many features of Applicants' present invention, as previously recited in independent claim 23. Therefore, this rejection is respectfully traversed. Nevertheless, Applicants submit that independent claim 23, as presented, amplifies the distinctions between the present invention and the cited art.

Independent claim 23 recites an exposure apparatus for exposing a wafer to radiation via a mask. The apparatus includes a process chamber in which the wafer is exposed to the radiation, a load-lock chamber including first and second gate valves, and connected to the process chamber via the first gate valve, a booth connected to the load-lock chamber via the second gate valve, a transfer mechanism arranged in the booth and configured to transfer the

wafer from another apparatus different from the exposure apparatus into the load-lock chamber through the booth, and a gas flow forming mechanism including a filter and configured to cause gas through the filter to flow through the booth.

Applicants submit that the cited art does not teach or suggest such features of the present invention, as recited in independent claim 23.

The Sasaki et al. patent shows a processing system 10, which includes a carrier-housing chamber 12, a load-lock chamber 13 and a cleaning chamber 14, arranged between the carrier-housing chamber 12 and the load-lock chamber 13. The load-lock chamber 13 has a wafer conveying unit 13A. When a wafer is conveyed from the carrier-housing chamber 12 to the load-lock chamber 13, the conveying unit 13A has to extend to the carrier-housing chamber 12 from the load-lock chamber 13 through the cleaning chamber 14. Applicants submit, however, that the extension of the conveying unit 13A to the carrier-housing chamber 12 may break the isolation formed by the cleaning chamber 14 between the load-lock chamber 13 and the carrier-housing chamber 12. Accordingly, in the device in the Sasaki et al. patent, the conveying unit 13A may cause particles in the carrier-housing chamber to enter into the load-lock chamber 13.

In marked contrast to the arrangement in the Sasaki et al. patent, in the present invention, the transfer mechanism is arranged in the booth connected to the load-lock chamber and is configured to transfer the wafer from another apparatus into the load-lock chamber through the booth through which the filter gas flows by the gas flow forming mechanism. Thus, in the present invention, the transfer mechanism is not required to extend across the booth, in the manner of the device in the Sasaki et al. patent.

For the reasons noted above, Applicants submit that the Sasaki et al. patent does not teach or suggest salient features of Applicants' present invention, as recited in independent claim 23, such as the arrangement of the transfer mechanism.

Applicants further submit that the remaining art cited does not cure the deficiencies noted above with respect to the Sasaki et al. patent.

The Examiner relies on the Yagi et al. patent for teaching a process of exposing a semiconductor wafer to light via a mask, and a multi-chamber apparatus including an exposure chamber for carrying out this process. Applicants submit, however, that the Yagi et al. patent, as with the Sasaki et al. patent, does not teach or suggest salient features of Applicants' present invention, as recited in independent claim 23, including at least the transfer mechanism arranged in the booth and configured to transfer the wafer from another apparatus different from the exposure apparatus into the load-lock chamber through the booth. Accordingly, Applicants submit that the Yagi et al. patent adds nothing to the teachings of the Sasaki et al. patent that would render obvious Applicants' present invention, as recited in independent claim 23.

For the foregoing reasons, Applicants submit that the present invention, as recited in independent claim 23, is patentably defined over the cited art, whether that art is taken individually or in combination.

Dependent claims 24-27 also should be deemed allowable, in their own right, for defining other patentable features of the present invention in addition to those recited in independent claim 23. Further individual consideration of these dependent claims is requested.

Applicants further submit that the instant application is in condition for allowance.
Favorable reconsideration, withdrawal of the rejection set forth in the above-noted Office Action
and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by
telephone at (202) 530-1010 All correspondence should continue to be directed to our address
given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Steven E. Warner", is written over a horizontal line.

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